



Hawthorn School District 73

Curriculum Guide for Parents: Sixth Grade

What you can expect your child to learn and be able to do.

This guide shares important information about Hawthorn Learning Standards, which are aligned with the Illinois Learning Standards. These standards outline state requirements for your child's learning program and what students across the state should be able to do in certain subjects.

A good educational system provides many tools that help children learn. Curriculum standards are useful for making sure:

- ★ teachers know what is to be taught;
- ★ children know what is to be learned; and
- ★ parents and the public can determine how well the concepts are being learned.

The following pages provide information about learning standards for English language arts, mathematics, science, social studies, technology, physical development and health, and fine arts for Sixth Grade. For a more comprehensive list, which includes all of the performance indicators, you may view our Curriculum Guide online at www.hawthorn73.org.

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Hawthorn middle school students have been active participants in the election process.

English Language Arts

Through the study of the language arts, students will learn to read fluently and understand a broad range of written materials. They must be able to communicate well and listen carefully and effectively. They should develop a command of the language and demonstrate their knowledge through speaking and writing for a variety of audiences and purposes. In addition, students must be able to study, retain, and use information from many sources.

Big Idea/Topic: Exploring and Experiencing Forms of Communication.

By the end of sixth grade, students will be able to...

Literacy

Reading

- ★ Determine the meaning of unfamiliar words through structural analysis and the use of word reference materials.
- ★ Draw inferences, conclusions, or generalizations about text and support them with textual evidence and prior knowledge.
- ★ Recognize points of view in narrative—first, second, or third person.
- ★ Determine what characters are like by what they say or do or by how the author or illustrator portrays them.
- ★ Make and verify predictions based on prior knowledge and text.
- ★ Explain how the author appeals to the senses, creates imagery, and suggests mood.
- ★ Identify whether a given passage is narrative, persuasive, or expository.
- ★ Identify organizational patterns in fiction and nonfiction.
- ★ Identify and interpret literary devices.



As part of a class on Media Literacy and Digital Production, these Hawthorn middle school students completed a clay animation project based on one of Aesop's fables.

Listening

- ★ Demonstrate ways that listening attentively (ask probing questions and provide feedback to a speaker) can improve comprehension and participate in discussions.

Speaking

- ★ Deliver planned oral presentations using language and vocabulary appropriate to the purpose.

Writing

- ★ Write compositions that contain complete sentences and effective paragraphs using English conventions.
- ★ Produce documents that convey a clear understanding and interpretation of ideas and information and display focus, organization, elaboration, and coherence.

- ★ Edit and revise for word choice, organization, consistent point of view, and transitions among paragraphs using contemporary technology and formats suitable for submission and/or publication.
- ★ Compose narrative, informative, and persuasive writings.
- ★ Using available technology, produce compositions and projects for specified purposes.
- ★ Design and present a project (e.g. written report and/or multimedia presentation).
- ★ Develop a works cited page from identified and evaluated sources.

Mathematics

Mathematics is a language we use to identify, describe, and investigate the patterns and challenges of everyday living. It deals with numbers, quantities, shapes, and data, as well as numerical relationships and operations. Mathematics is a way of approaching new challenges through investigating, reasoning, visualizing, and problem solving with the goal of communicating the relationship observed and problems solved to others.

Big Idea/Topic: Using Math to Analyze Patterns.

Number Sense

- ★ Understand characteristics and relationships of numbers (even/odd, prime, composite).
- ★ Demonstrate all operations with whole numbers and decimals.
- ★ Round up to the millions place.
- ★ Estimate in problem-solving situations and as a self-check.
- ★ Demonstrate understanding of exponents.
- ★ Apply Least Common Multiple (LCM) and Greatest Common Factor (GCF).
- ★ Solve problems using order of operation.
- ★ Calculate fractions using adding and subtracting like and unlike denominators in simplest form.

- ★ Demonstrate an understanding of ratio, proportion, and percentage.
- ★ Convert between decimals, fractions, and percentages.
- ★ Compare and order whole numbers, decimals, and fractions, and convert from one to the other.

Estimation and Measurement

- ★ Choose and use the appropriate metric and customary measures to the nearest millimeter and $\frac{1}{8}$ of an inch.
- ★ Compare and estimate length, area, volume, weight, and mass.
- ★ Convert metric and customary measures within the same measurement system.
- ★ Calculate perimeter and area of triangles, parallelograms, and irregular shapes.
- ★ Determine the volume of a right rectangular prism using an appropriate formula or strategy.

Algebra and Analytical Methods

- ★ Write and solve one-step equations with whole numbers using algebra.
- ★ Identify patterns and sequences and apply them to find missing terms.
- ★ Evaluate algebraic expressions with up to two whole number variables.
- ★ Write and identify inequalities and graph on a number line.

Geometry

- ★ Identify and describe 3-dimensional shapes from their nets or according to their characteristics, faces, edges, and vertices).
- ★ Solve problems using properties of triangles and quadrilaterals (sum of interior angles).
- ★ Identify and describe circles, including radius, diameter, and chord.
- ★ Graph points and identify coordinates of points in the first quadrant.
- ★ Identify and construct parallel, perpendicular, and intersecting lines.
- ★ Classify and sketch acute, obtuse, and right angles.
- ★ Identify and apply relationships of congruent and similar figures.

Data Analysis and Probability

- ★ Interpret and construct a variety of graphs.
- ★ Calculate mean, median, mode, and range of a given number set.
- ★ Solve problems involving the probability of simple events, including representing probability as a fraction, percent or decimal.

Science

The goal of science education is to develop in learners an understanding of the inquiry process as it is related to key concepts and principles of the life, physical, and earth/space sciences. The curriculum addresses the integration of the sciences with technology and society as students learn to connect the importance of scientific knowledge to its application in everyday life.

Scientific Inquiry and Technological Design

- ★ Design and conduct a scientific investigation using the Scientific Method.
- ★ Formulate hypotheses as they relate to scientific inquiries.
- ★ Collect and organize data accurately using data tables and graphs.
- ★ Analyze, interpret and communicate results of investigations.

Life Science: Interactions within Living Things

- ★ Understand and utilize classification systems.
- ★ Compare and contrast the functions of various animal structures.
- ★ Hypothesize and investigate how changes in form and structure are related to change in the environment.
- ★ Describe adaptive, competitive, and survival potential of organisms.
- ★ Investigate how organisms have changed over time.
- ★ Examine the fossil record.
- ★ Predict how changes humans have made to the environment may impact adaptations of organisms in the future.

Physical Science: Force, Motion, and Change

- ★ Provide everyday examples of Newton's Laws of Motion.
- ★ Investigate factors that affect the gravitational forces on an object (i.e., size, mass, distance).
- ★ Apply Newton's Laws to safety practices and technological advances.
- ★ Apply Newton's Laws to design projects.
- ★ Use scientific processes to carry out controlled investigations.
- ★ Demonstrate how keeping accurate data, comparing results with those of others, and analyzing conclusions can improve the validity of scientific data.
- ★ Develop strategies to improve the validity of scientific data.

Earth /Space Science: Astronomy

- ★ Describe the effect of gravitational forces on the solar system.
- ★ Compare the orbital shapes of the planets.
- ★ Describe the effects of gravity on tides.
- ★ Compare the gravity of each planet.
- ★ Compare the surfaces and atmospheric conditions of planets.
- ★ Describe the size and composition of planets.
- ★ Recognize the orbits of comets and planets.
- ★ Use scale models to compare relative size and distance of planets.
- ★ Describe the life cycle of the stars.
- ★ Compare and contrast chemical and physical characteristics of the stars.
- ★ Identify the simple constellations.
- ★ Describe the theories that explain the origins of the universe
- ★ Identify the importance of technology in space survival.
- ★ Describe how the tilt of the earth relative to the sun causes seasons.
- ★ Recognize that the positions of the sun, moon, and earth create moon phases and eclipses.

Science, Technology, and Society

- ★ Apply appropriate principles of safety.
- ★ Apply scientific habits of mind to generate questions and strategies to test science concepts using critical and creative things, research historic examples of valid and faulty hypothesis generation and investigations, and contrast the scientific methods of observational and experimental investigations.
- ★ Suggest how societal influences have affected scientific inquiry positively and negatively.
- ★ Apply scientific technologies, incorporating technology and software into classroom research, investigations, and contextual studies.
- ★ Compare public perceptions about the costs and impact of pure science research and applied science solutions.

Safety and Practices of Science

- ★ Identify and reduce potential hazards in science activities.
- ★ Identify and demonstrate proper use of laboratory equipment.

Social Studies

The study of social studies helps students develop the ability to make informed and reasoned decisions for the public good. Students are preparing to become citizens of a culturally diverse, democratic society in an interdependent world. The curriculum integrates the disciplines of social science to promote civic competence.

Big Idea/Topic: Diversity of the Eastern Hemisphere.

Political Science/Government

- ★ Identify ideas that would encourage more civic responsibility among individuals.
- ★ Analyze historical events involving the extension or denial of political and electoral rights of various citizens or groups of people.
- ★ Illustrate conflicts over the rights and freedom of competing individuals or groups.
- ★ Give examples of events where people have had to fight to win their equality.
- ★ Analyze ways in which political parties and interest groups influence public opinion by the use of the media.
- ★ Identify a political tradition or custom that had its origin in another country.
- ★ Describe the leadership role of the United States in international organizations.

Economics

- ★ Demonstrate how productivity increases through the use of technology.
- ★ Explain that competition takes place when there are many buyers and sellers of similar products.
- ★ Explain that there are incentives other than price that affect people's behavior in the economy.
- ★ Identify examples of people acting as consumers and as producers.
- ★ Provide examples of economic specialization.

History

- ★ Place a series of events from the past that are listed on a chronology or timeline and categorize them according to political, economic, environmental, or social importance.
- ★ Describe the basic economic changes that led to or resulted from turning points in world history.
- ★ Describe a turning point in world history.
- ★ Assess the effects of a significant invention or technological innovation on the physical and cultural environment on a place or region.
- ★ Describe how the environmental history of one place or world region has changed using a variety of geographic tools.
- ★ Describe the impact that significant individuals or groups in the non-Western world had on political events.
- ★ Analyze the issues of social status and social role in the past and present.
- ★ Describe social changes that resulted from cultural exchange between and among different societies.
- ★ Describe how the people of a specific civilization gained control over rivers or other principal physical features.

Geography

- ★ Demonstrate understanding of the location of various physical and human features.
- ★ Understand how parallels of latitude and meridians of longitude can be used to determine direction and distance on a map or globe.
- ★ Explain how and why ecosystems differ from place to place as a consequence of differences in soils, climates, and human and natural disturbances.
- ★ Identify ways that human behavior could be changed to solve specific environmental problems.
- ★ Hypothesize about relationships between physical features and the occurrence of human activities of a particular place and how these activities changed over the years.

Social Science

- ★ Compare and contrast two or more cultures in terms of expressions of those cultures.
- ★ Differentiate among pre-industrial, industrial and post-industrial societies.

Technology

Technology is one of many tools that students have at their disposal as they engage in the learning process. Educational technology is the application of technology to the learning process. Technologically literate students access and acquire knowledge, exchange ideas and opinions, solve problems, and create, innovate, and express themselves through the skillful use of a variety of technologies. Technology is integrated into the classroom through regular planned activities and is used by students when its use will increase understanding and enhance learning.

Tools, Knowledge, and Skills

- ★ Apply strategies for identifying and solving routine hardware and software problems.
- ★ Develop positive attitudes toward technology uses that support lifelong learning, collaboration, personal pursuits, and productivity.
- ★ Utilize a wide variety of current and emerging technologies and media with various activities.
- ★ Use content-specific tools, software, and simulations (environmental probes, graphing calculators, exploratory environments, Web tools) to support learning and research.
- ★ Apply productivity/multimedia tools and peripherals to support personal productivity, group collaboration, and learning throughout the curriculum.
- ★ Design, develop, publish, and present products (Web pages, videos) using technology resources that demonstrate and communicate curriculum concepts to audiences inside and outside the classroom.
- ★ Collaborate with peers, experts, and others using collaborative tools to investigate curriculum-related problems, issues, and information, and to develop solutions or products for audiences inside and outside the classroom.
- ★ Select and use appropriate tools and technology resources to accomplish a variety of tasks and to design solutions to solve problems.
- ★ Demonstrate an understanding of concepts underlying hardware, software, and connectivity, and of practical applications to learning and problem solving.
- ★ Research and evaluate the reliability of Internet resources
- ★ Know and model ethical, legal, and responsible behavior using technology.

Physical Development and Health

Physical development programs offer students the opportunity to enhance the capacity of their minds and bodies. Healthy minds and bodies are basic to academic success and, later in life, to enhancing the ability to contribute to a productive work environment. The health curriculum focuses on health promotion, safety, and understanding the human body and how it grows and develops. Problem solving, communication, responsible decision making, and team-building skills are major

emphases, as well. More specific goals are outlined in the curriculum guide in the following areas: movement skills, physical fitness, team-building, principles of health promotion, human body systems, and promoting health and well-being.

Using Knowledge to Maintain a Healthy Lifestyle

- ★ Cooperate using good social skills.
- ★ Enhance their ability to perform using improved knowledge and physical skills.
- ★ Develop nutrition and exercise as life long skills.
- ★ Practice safety as an important component to good health and well-being.

Fine Arts

In addition to their intrinsic value, the arts contribute to children's development and enrich the quality of life. The fine arts—dance, drama, music, and visual arts—are fundamental ways of knowing and thinking. The fine arts curriculum addresses the language of the fine arts, sensory elements, organizational prin-

ciples, expressive qualities, and how the arts are similar, different, or related to one another. Students also learn how to interpret visual images, sounds, movement, and story. The creation and performance of the arts is emphasized along with the role of the arts in civilization.

Sharing the Arts

- ★ Demonstrate the importance of utilizing a variety of elements in their original creations.
- ★ Appreciate different culture's art.
- ★ Decide what contribution they will make to the arts in their future.